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REMARKS

Claims 1-28 are currently pending in the subject application and are presently under consideration. Amendments to the specification can be found at pages 2-4. A clean version of the claims can be found at pages 5-8. Claims 23 and 27-28 have been amended herein.

Additionally, applicant's representative notes with appreciation the indication that claims 9-10 and 22 would be allowable if recast in independent form to include all limitations of respective base claim(s) and any intervening claim(s). It is believed such amendments are not necessary in view of the below-noted deficiencies of the cited references *vis a vis* the claimed invention. However, if necessary, applicant's representative reserves the option to amend such claims at a later date. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

It is noted that the primary reference Discenzo (US 5,723,794) is commonly owned by the assignee of the subject application; and the inventor Frederick M. Discenzo is the same for the cited patent and the subject application. Moreover, the inventions of the cited reference and the subject application were commonly owned by Rockwell Automation at the time the invention(s) were made.

I. Rejection of Claims 1-8, 11-18 and 23-28 Under 35 U.S.C. §102(b)

Claims 1-8, 11-18 and 23-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Discenzo (US 5,723,794). Applicant's representative respectfully requests that this rejection be withdrawn for at least the following reasons. Discenzo does not teach or suggest all the limitations of the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation set forth in the patent claim. Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *The identical invention must be shown in as complete detail as is contained in the ... claim. Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

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Applicant's claimed invention relates to an optical sensing system that facilitates measuring one or more characteristics of a structure. In particular, independent claims 1, 23 and 28 recite similar limitations, namely *a signal directed through the photo-elastic material along an axis of rotating structure*. The cited reference is silent regarding such novel aspects of the claimed invention.

More particularly, the invention as claimed directs a signal *along an axis of a rotating structure*, thus allowing for measurement of a larger area of the structure with increased accuracy within which analysis (e.g. structural fatigue, torsional load, misalignment, etc.) can be carried out. Discenzo is silent regarding such novel aspects of applicant's claimed invention.

Instead, the reference employs light that interacts *radially* with a photo-elastic material covering of a rotating structure. The reflected light exits the photo-elastic material at a plurality of points. The reflected light then passes through a polarizing filter and into a detector for determination of the health of the structure. (col. 3, lines 32-39). To the contrary, applicant's claimed invention directs a signal *along an axis of a rotating structure*, thus allowing the signal to travel a longer path through the photo-elastic material. Increased accuracy with respect to measurement data indicative of the health of a rotating structure is accomplished because the sensitivity of an optical sensing system utilizing the photo-elastic effect is linearly proportional to the distance traveled by a signal through the photo-elastic material. The Examiner is reminded that the standard by which anticipation is to be measured is *strict identity* between the cited document and the invention as claimed, not mere equivalence or similarity. *See, Richardson* at 9 USPQ2d 1913, 1920.

In view of at least the foregoing, it is readily apparent that Discenzo does not teach the identical invention in as complete detail as is contained in the subject claims. Accordingly, this rejection should be withdrawn.

II. Rejection of Claims 19-20 Under 35 U.S.C. §103(a)

Claims 19-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Discenzo in view of Lesniak (US 6,055,053). This rejection should be withdrawn for at least the following reasons. The cited references, either alone or in combination, fail to teach or suggest all the limitations set forth in applicant's claims.

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The subject claims respectively depend from independent claim 1. As discussed *supra*, Diczko does not teach a signal directed through the photo-elastic material along an axis of rotating structure. Lesniak fails to compensate for such deficiencies of Diczko. Lesniak relates to a strain detecting apparatus that employs incident light that interacts radially on an object to obtain data related to shear stresses on the object. Nowhere does Lesniak disclose a measurement system that directs a signal along an axis of a rotating structure. It is respectfully submitted that the combination of references do not make obvious the invention as recited in the subject claims. Accordingly, this rejection with respect to claims 19 and 20 should be withdrawn.

III. Rejection of Claim 21 Under 35 U.S.C. §103(a)

Claim 21 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Diczko in view of De La Puente *et al.* (US 6,513,390). This rejection should be withdrawn for at least the following reasons. Diczko and De La Puente *et al.*, neither alone nor in combination, disclose all limitations of the subject claims.

Claim 21 depends from independent claim 1. As previously discussed, Diczko is silent regarding light directed through the photo-elastic material along an axis of rotating structure. De La Puente *et al.* does not make up for such deficiencies. Rather, De la Puente *et al.* relates to a temperature insensitive fiber-optic torque and strain sensor that directs polarized light substantially perpendicular relative to the strain induced axes of the photoelastic material. Thus, the cited documents fail to teach or suggest all the limitations of applicant's claimed invention. This rejection should be withdrawn.

IV. Objection of Claim 27

Claim 27 stands objected to under 37 CFR 1.75(c), as being of improper dependent form for being dependent upon itself. This objection is now believed to be moot in view of the amendments to the subject claim.

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Conclusion

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 (Reference No. ALBRP294USC).

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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